From: Wu, Jennifer To: Alan Henning

**Sent:** 7/2/2014 6:45:13 PM

**Subject:** FYI: Some pesticide label info

Attachments: CZARA Review\_ Pesticide Label Language.docx

Hi Alan – Just FYI on some work that Gabriela did for us last year on pesticide labels. I'm focusing on 2,4-D, atrazine, and glyphosate which are the herbicides mentioned the most in comment letters. You'll see that aerial application of atrazine is prohibited. 2,4-D is part of the 2004 Court Order, so I'm going to follow up with the pesticides group.

I also talked with Dirk who will be really helpful in us getting information from the pesticides group at HQ for the basis of the labeling.

From: Carvalho, Gabriela

Sent: Friday, August 16, 2013 11:30 AM

**To:** Carlin, Jayne; Henning, Alan; allison.castellan@noaa.gov; Wu, Jennifer; Liu, Linda; Waye, Don; Solloway, Chris **Subject:** RE: Action Items from Aug 13th Call on Pesticides & CZARA (Adequacy of Stream Buffers on Type N

Streams When Applying Pesticides in Oregon)

Hello OR CZARA tech team,

Linda and I reviewed a number of pesticide labels for buffer zone language. There were quite a few herbicide labels that included very generic language to protect against direct application to waters, such as the following label statement:

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

## Or, this example:

This pesticide is extremely toxic to freshwater, marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

The labels we reviewed had specific statements concerning spray drift management followed by instructions on how to prevent spray drift. Below is an example of the opening text for the spray drift management section on a label:

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, relative humidity) and method of application (e.g. ground, aerial, airblast) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Attached is a summary of some examples of labels we reviewed for specific active ingredients. It was rare for a label to include specific buffer zones to protect a water body. It was also rare for a label to reference fish bearing streams specifically. Some labels reference streams in which endangered species are present. Example labels were reviewed for the following active ingredients:

- 1. Atrazine (includes buffer zone language)
- 2. 2, 4-D (can be applied terrestrially and aquatically)
- 3. Pendimethalin (has endangered species protective language that includes buffer zones)
- 4. Trifluralin

I hope these examples help you become familiar with the kind of language that these labels provide.

 Please let us know if you would like us to participate in your August 22nd meeting (referenced in Jayne's email below). If so, please forward Linda and me the meeting invitation.

Thanks,

Gabriela (and Linda)

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From: Carlin, Jayne

Sent: Wednesday, August 14, 2013 10:03 AM

To: Henning, Alan; allison.castellan@noaa.gov; Wu, Jennifer; Liu, Linda; Carvalho, Gabriela; Waye, Don; Solloway, Chris

Cc: Leinenbach, Peter; Croxton, Dave; Psyk, Christine

Subject: Action Items from Aug 13th Call on Pesticides & CZARA (Adequacy of Stream Buffers on Type N Streams When

Applying Pesticides in Oregon)

## August 13<sup>th</sup> Conference Call Action Items

Pesticides & CZARA (Adequacy of Stream Buffers on Type N Streams When Applying Pesticides in Oregon)

- Alan will ask Peter Leinenbach to review the three case studies (referenced in Oregon's July 1<sup>st</sup> response to EPA/NOAA on showing that the requirements were protective) to determine validity this week.
- Allison will follow up with Sunny at NMFS to find out the progress on the negotiations regarding buffer recommendations in the biological opinion (NOAA/NMFS) vs. EPA's labels on buffers this week.
- The CZARA tech team will review Oregon's Pesticide Management Plan to determine whether approach of voluntary measures with label enforcement meets CZARA threshold. General Oregon Pesticides website <a href="http://www.oregon.gov/ODA/PEST/pages/water\_quality.aspx">http://www.oregon.gov/ODA/PEST/docs/pdf/wqpmtpmp.pdf</a>
- Gabriela/Linda will provide the CZARA tech team with examples of labels for the most common herbicides used in Oregon so that the Team can see whether the labels are protective of all streams (including non-fish bearing streams).
- Follow-up call will be held on Aug 22 (11-11:45 OR/WA or 2-2:45 DC/VA)

## Respectfully,

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http://www.epa.gov/r10earth/tmdl.htm

**From:** Henning, Alan

**Sent:** Tuesday, August 13, 2013 8:47 AM

To: allison.castellan@noaa.gov; Carlin, Jayne; Wu, Jennifer; Liu, Linda; Carvalho, Gabriela; Waye, Don

Subject: Agenda for today's call

Attached is the agenda for the discussion on the pesticides/buffer CZARA issue. Please forward this to others who may be joining us. Please let me know if you have any questions. Talk with you all later today.

 Alan 541-687-7360